IN THE CLAIMS:

1. (Previously Presented) A motor assembly comprising:

a DC motor including:

a motor housing defining a stator,

a rotor assembly supported for rotational movement with respect to the stator, and

a shaft coupled to the rotor assembly for rotation about an axis of rotation,

a supporting structure carrying the motor;

decoupling structure mounting the motor housing to the supporting structure in a manner to provide a predetermined natural frequency of the motor in torsion around the axis of rotation of the shaft while providing natural frequencies higher than the predetermined natural frequency of the motor other than torsion, and

pivot structure, associated with the supporting structure and the motor, defining a pivot permitting pivoting of the motor with respect to the supporting structure, with a center of the pivot being aligned with the axis of rotation.

2. (Original) The motor assembly of claim 1, wherein decoupling structure comprises a plurality of torsion springs, each spring having one end coupled to the motor housing at a first end of the motor with another end of the spring being coupled to the supporting structure.

3. (Original) The motor assembly of claim 2, wherein three torsional springs are provided generally 120 degrees apart.

4. (Currently Amended) A motor assembly comprising:

a DC motor including:

a motor housing defining a stator,

a rotor assembly supported for rotational movement with respect to the stator, and

a shaft coupled to the rotor assembly for rotation about an axis of rotation,

a supporting structure carrying the motor;

decoupling structure mounting the motor housing to the supporting structure in a manner to provide a predetermined natural frequency of the motor in torsion around the axis of rotation of the shaft while providing natural frequencies higher than the predetermined natural frequency of the motor other than torsion, and

pivot structure, associated with the supporting structure and the motor, defining a pivot permitting pivoting of the motor with respect to the supporting structure, with a center of the pivot being aligned with the axis of rotation,

wherein decoupling structure comprises a plurality of torsion springs, each spring having one end coupled to the motor housing at a first end of the motor with another end of the spring being coupled to the supporting structure,

~~The motor assembly of claim 2,~~ wherein the pivot structure includes:

a recess provided in an end of the motor opposite the first end thereof, and

a projection extending from the supporting structure and being received in the recess, with the torsion spring maintaining the projection in the recess.

5. (Original) The motor assembly of claim 4, wherein the projection is formed as a pin having a rounded end and the recess is defined by a concave surface.

6. (Previously Presented) The motor assembly of claim 4, wherein the projection is formed as toroid and the recess is a generally circular groove.

7. (Original) The motor assembly of claim 1, wherein rotor assembly includes an armature and the stator includes permanent magnets.

8. (Original) The motor assembly of claim 1, further including a switch for controlling speed of the motor.

9. (Original) The motor assembly of claim 8, wherein the switch is constructed and arranged to be controlled by a pulse width modulated signal.

10. (Currently Amended) A motor assembly comprising:

a DC motor including:

a motor housing defining a stator,

a rotor assembly supported for rotational movement with respect to the stator, and

a shaft coupled to the rotor assembly for rotation about an axis of rotation,

a supporting structure carrying the motor;

means for coupling the motor housing to the supporting structure in a manner to provide a predetermined natural frequency of the motor in torsion around the axis of rotation of the shaft while providing natural frequencies higher than the predetermined natural frequency of the motor other than torsion, and

means, associated with the supporting structure and the motor, for permitting pivoting of the motor with respect to the supporting structure, the means for permitting pivoting defining a pivot, with a center of the pivot being aligned with the axis of rotation.

11. (Original) The motor assembly of claim 10, wherein the means for coupling comprises a plurality of torsion springs, each spring having one end coupled to the motor housing at a first end of the motor with another end of the spring being coupled to the supporting structure.

12. (Original) The motor assembly of claim 11, wherein three torsional springs are provided generally 120 degrees apart.

13. (Currently Amended) A motor assembly comprising:

a DC motor including:

a motor housing defining a stator,

a rotor assembly supported for rotational movement with respect to the stator, and

a shaft coupled to the rotor assembly for rotation about an axis of rotation,

a supporting structure carrying the motor;

means for coupling the motor housing to the supporting structure in a manner to provide a predetermined natural frequency of the motor in torsion around the axis of rotation of the shaft while providing natural frequencies higher than the predetermined natural frequency of the motor other than torsion, and

means, associated with the supporting structure and the motor, for permitting pivoting of the motor with respect to the supporting structure,

wherein the means for coupling comprises a plurality of torsion springs, each spring having one end coupled to the motor housing at a first end of the motor with another end of the spring being coupled to the supporting structure,

~~The motor assembly of claim 11,~~ wherein the means for permitting pivoting includes:

a recess provided in an end of the motor opposite the first end thereof, and

a projection extending from the supporting structure and being received in the recess, with the torsion springs maintaining the projection in the recess, the recess and projection defining a pivot with a center of the pivot being aligned with the axis of rotation.

14. (Original) The motor assembly of claim 13, wherein the projection is formed as a pin having a rounded end and the recess is defined by a concave surface.

15. (Original) The motor assembly of claim 13, wherein the projection is formed as toroid and the recess is a generally circular groove.

16. (Original) The motor assembly of claim 10, wherein rotor assembly includes an armature and the stator includes permanent magnets.

17. (Original) The motor assembly of claim 10, further including a switch for controlling speed of the motor.

18. (Original) The motor assembly of claim 17, wherein the switch is constructed and arranged to be controlled by a pulse width modulated signal.

19. (Previously Presented) A method of controlling vibration of a motor assembly, the motor assembly includes a DC motor having a motor housing defining a stator; a rotor assembly supported for rotational movement with respect to the stator, and a shaft coupled to the rotor assembly for rotation about an axis of rotation, the method including:

coupling the motor housing to a supporting structure, carrying the motor, via springs so as to provide a predetermined natural frequency of the motor in torsion around the axis of rotation of the shaft while providing natural frequencies higher than the predetermined natural frequency of the motor other than torsion, and

providing a pivot between the motor and the supporting structure so that the motor can pivot with respect to the supporting structure, wherein a center of the pivot is aligned with the axis of rotation.

20. (Currently Amended) A method of controlling vibration of a motor assembly, the motor assembly includes a DC motor having a motor housing defining a stator; a rotor assembly supported for rotational movement with respect to the stator, and a shaft coupled to the rotor assembly for rotation about an axis of rotation, the method including:

coupling the motor housing to a supporting structure, carrying the motor, via springs so as to provide a predetermined natural frequency of the motor in torsion around the axis of rotation of the shaft while providing natural frequencies higher than the predetermined natural frequency of the motor other than torsion, and

providing a pivot between the motor and the supporting structure so that the motor can pivot with respect to the supporting structure, wherein a center of the pivot is aligned with the axis of rotation,

~~The method of claim 19,~~ wherein the step of providing a pivot includes providing a projection extending from the supporting structure that is received in a recess defined in an end of the motor, the springs maintaining the projection in the recess.